

Reference 2:

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Title: METHOD FOR CENTRIFUGAL SEPARATION TREATMENT OF SPECIMEN AND  
APPARATUS THEREFOR

Brief description of the drawings:

Fig. 1 illustrates the configuration of an apparatus of centrifugal separation treatment of specimen according to an embodiment of the invention;

Fig. 2 is a side view illustrating the configuration of a centrifugal separator body of the apparatus according to an embodiment of the invention;

Fig. 3 is a view illustrating the configuration of a centrifugal separation rotor of the apparatus according to an embodiment of the invention; Fig. 3(a) is a plan view and Fig. 3(b) is a side view;

Fig. 4 is a view illustrating the configuration of a main part of the apparatus according to an embodiment of the invention; Fig. 4(a) is a perspective view of a vessel loading part and Fig. 4(b) is a perspective view of a part of a specimen vessel manipulating device and a lock mechanism, with a part of the vessel loading part;

Fig. 5 illustrates an action of resolving imbalance by dummy vessels in the apparatus of centrifugal separation treatment of specimen according to an embodiment of the invention; and

Fig. 6 is a flow chart of a method for centrifugal separation treatment of specimen according to an embodiment of the invention.

- 1 ... specimen-containing vessel
- 2 ... vessel holder
- 3 ... specimen vessel set
- 10 ... transport device
- 11 ... carrying-in lane
- 12 ... carrying-out lane
- 13 ... first stopper
- 14 ... second stopper
- 20 ... centrifugal separator
- 21 ... case
- 22 ... top wall
- 23 ... window
- 30 ... standby device
- 31 ... empty holder standby lane
- 32 ... stopper
- 33 ... vessel sensor
- 34 ... dummy vessel feeding device
- 35 ... cylindrical holder
- 36 ... dummy vessel
- 37 ... pushing-out mechanism
- 40 ... reversible transfer device
- 41 ... transfer lane
- 42 ... drive mechanism

50 ... specimen vessel manipulating device  
51 ... arm  
52 ... catching mechanism  
53 ... support base body  
54 ... clipping part  
60 ... centrifugal separator main body  
61 ... main motor  
62 ... drive shaft  
63 ... brake mechanism  
63a ... disc  
63b ... brake  
64 ... sensor for rotation angle of rotor  
64a ... slit disc  
64b ... photosensor  
65 ... gear  
66 ... arm  
67 ... gear  
68 ... auxiliary motor  
69 ... vibration sensor  
70 ... centrifugal rotor  
71 ... shaft body  
72 ... spoke  
73 ... annular body  
74 ... support projection  
75 ... vessel loading part  
76a,76b ... shaft part  
77a-77e ... tube support hole  
78 ... support bar  
79a-79e ... vessel holding tube  
80 ... lock mechanism  
81,82 ... clipping element  
83 ... drive mechanism

V,W ... vessel set transfer part

C ... controller (CPU)

D ... not-loaded part detector

M ... base body

# { Figures } Reference 2

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Fig. 1

[図1]

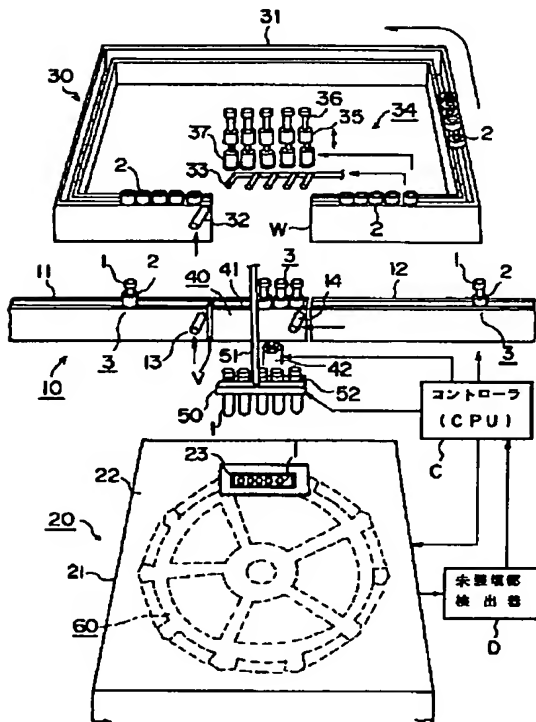


Fig. 2

[図2]

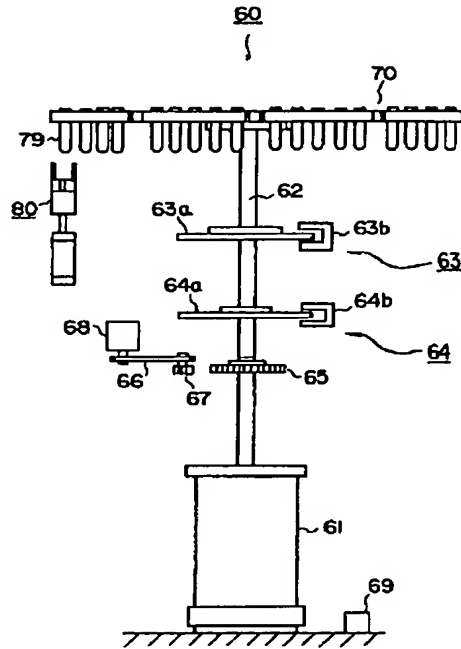
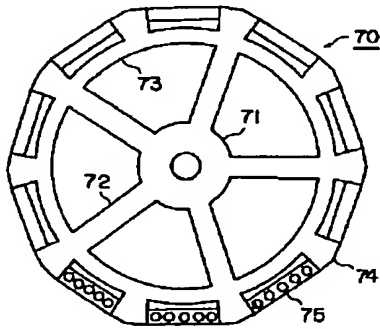


Fig. 3 [図3]

(a)



(b)

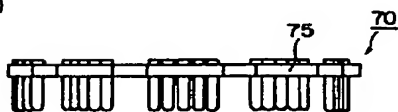


Fig. 4 [図4]

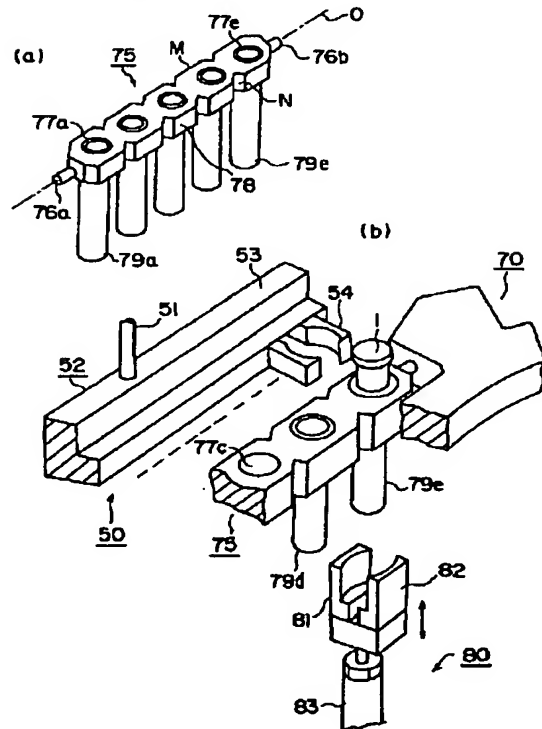


Fig. 5

【図5】

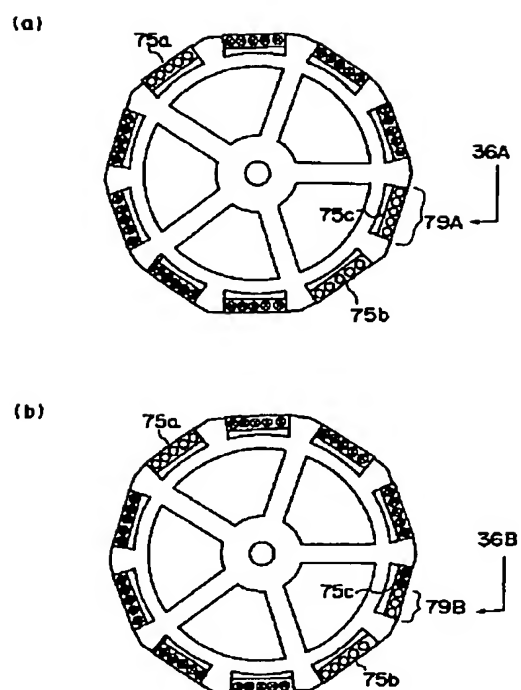


Fig. 6

【図6】

